

Application No.: 10/532,004
Amendment under 37 CFR 1.111
Reply to Office Action dated March 23, 2006
July 24, 2006

IN THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claim 1 (Currently amended): A lead-free solder, which contains 30 to 70 weight percent zinc and tin, and also contains, greater than 0 to 5 weight percent ~~or less~~ nickel, and the remaining weight percent tin with a liquid phase temperature of 260°C or greater.

Claim 2 (Cancelled):

Claim 3 (Currently amended): The lead-free solder according to claim 1, wherein said solder further containing greater than 0 to 0.5 weight percent ~~or less~~ aluminum.

Claim 4 (Currently amended): A lead-free solder, which contains zinc and tin, and also contains greater than 0 to 1 weight percent ~~or less~~ copper with a liquid phase temperature of 260°C or greater,

wherein said copper controls intermetallic compound growth during soldering.

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Claim 5 (Cancelled):

Claim 6 (Currently amended): A lead-free joint, which contains 30 to 70 weight percent zinc ~~and tin, and also contains,~~ greater than 0 to 5 weight percent ~~or less~~ nickel, and the remaining weight percent tin.

Claims 7-9 (Cancelled):

Claim 10 (Currently amended): The lead-free joint according to claim 6, wherein said joint further containing greater than 0 to 0.5 weight percent ~~or less~~ aluminum.

Claim 11 (Original): The lead-free joint according to claim 10, wherein said joint is used in copper connections.

Claims 12-13 (Cancelled):

Please add the following new claims 14-15 as follows:

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Claim 14 (New): The lead-free solder according to claim 1, wherein the ratio of the amount of said nickel to said zinc is at least 0.16 weight percent.

Claim 15 (New): The lead-free joint according to claim 6, wherein the ratio of the amount of said nickel to said zinc is at least 0.16 weight percent.